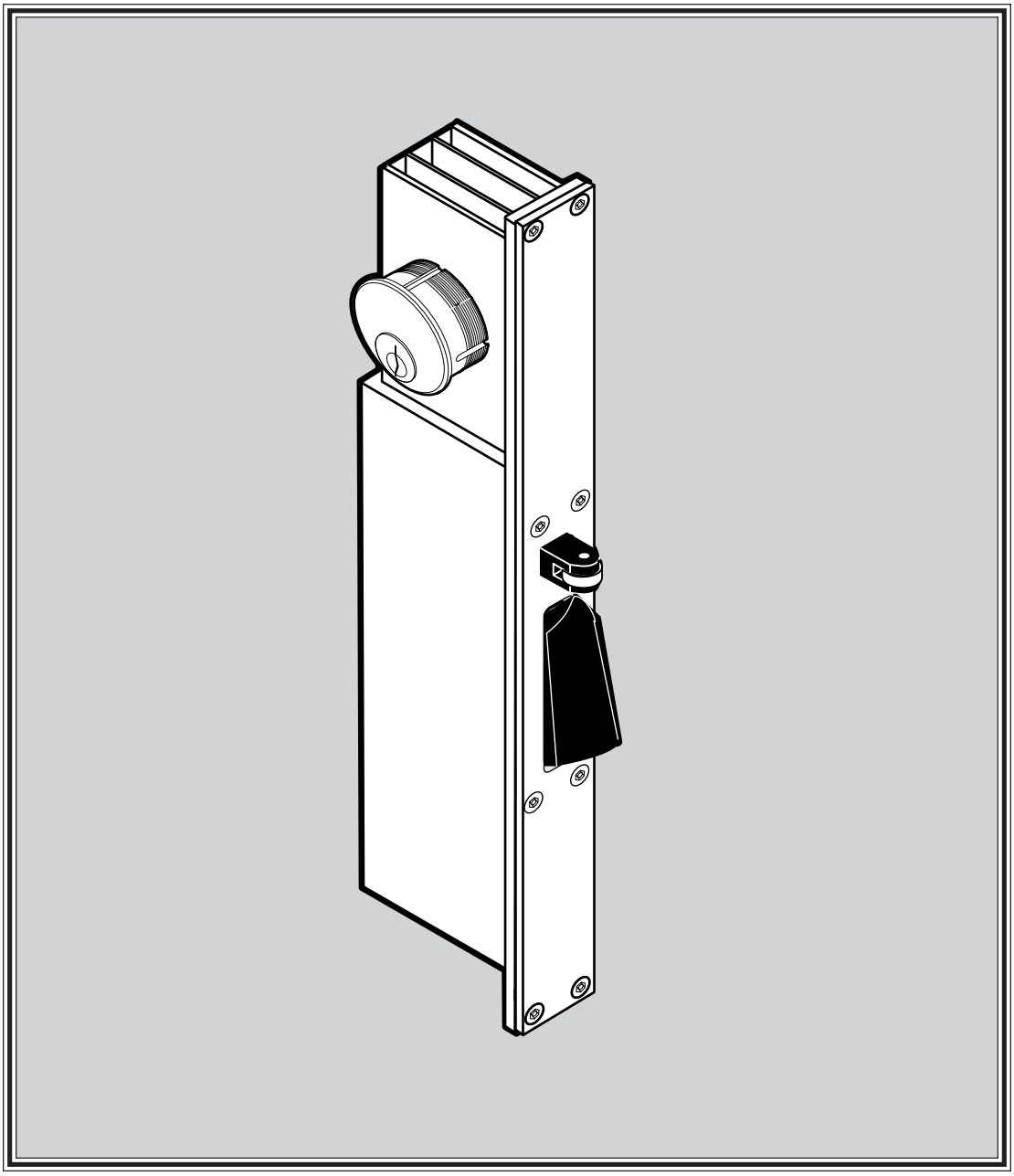
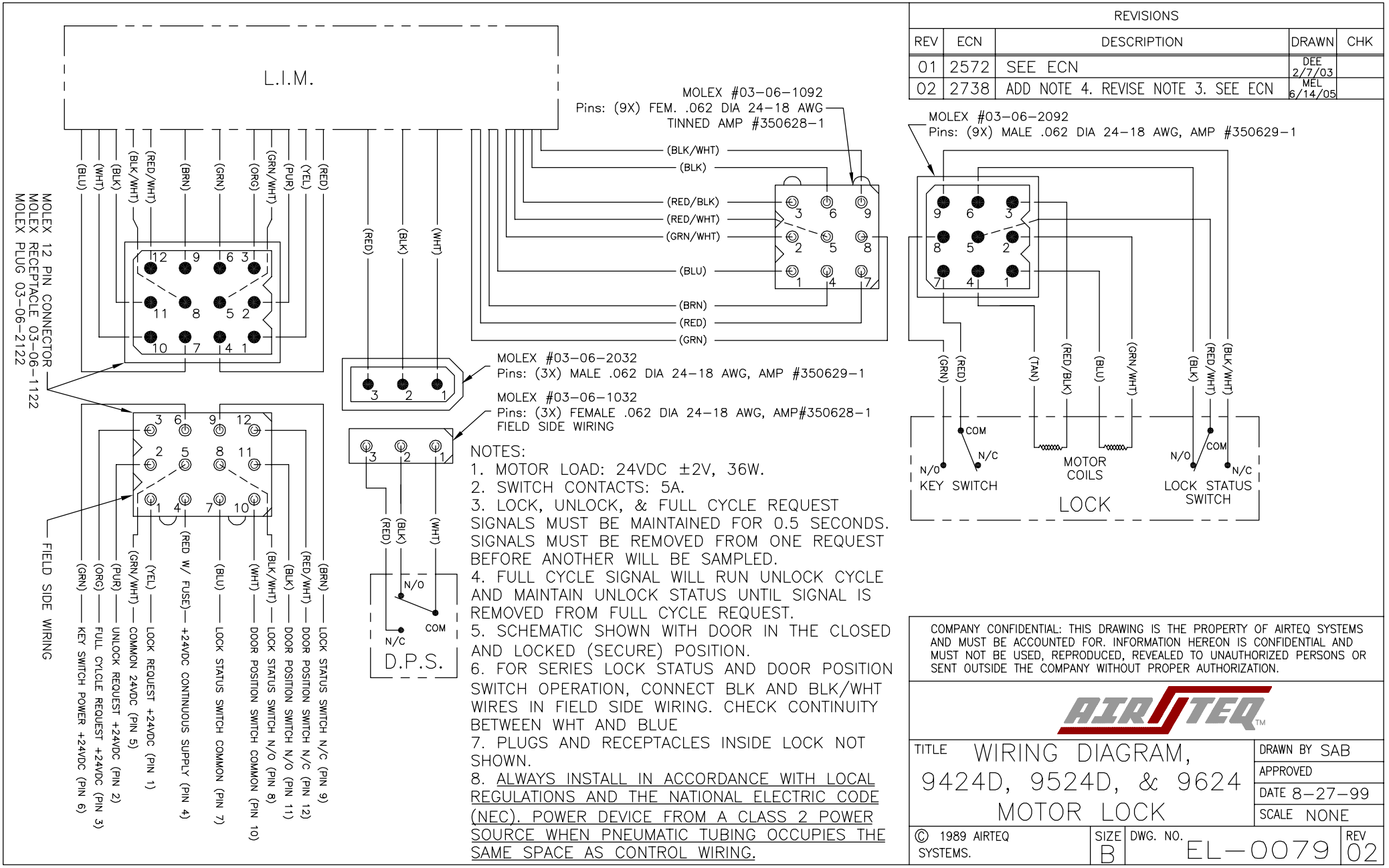
A Division of Norment Security Group

9624 SERIES LOCK





NOTES:

1. MOTOR LOAD: 24VDC ±2V, 36W.
2. SWITCH CONTACTS: 5A.
3. LOCK, UNLOCK, & FULL CYCLE REQUEST SIGNALS MUST BE MAINTAINED FOR 0.5 SECONDS. SIGNALS MUST BE REMOVED FROM ONE REQUEST BEFORE ANOTHER WILL BE SAMPLED.
4. FULL CYCLE SIGNAL WILL RUN UNLOCK CYCLE AND MAINTAIN UNLOCK STATUS UNTIL SIGNAL IS REMOVED FROM FULL CYCLE REQUEST.
5. SCHEMATIC SHOWN WITH DOOR IN THE CLOSED AND LOCKED (SECURE) POSITION.
6. FOR SERIES LOCK STATUS AND DOOR POSITION SWITCH OPERATION, CONNECT BLK AND BLK/WHT WIRES IN FIELD SIDE WIRING. CHECK CONTINUITY BETWEEN WHT AND BLUE
7. PLUGS AND RECEPTACLES INSIDE LOCK NOT SHOWN.
8. ALWAYS INSTALL IN ACCORDANCE WITH LOCAL REGULATIONS AND THE NATIONAL ELECTRIC CODE (NEC). POWER DEVICE FROM A CLASS 2 POWER SOURCE WHEN PNEUMATIC TUBING OCCUPIES THE SAME SPACE AS CONTROL WIRING.

REVISIONS

REV	ECN	DESCRIPTION	DRAWN	CHK
01	2572	SEE ECN	DEE 2/7/03	
02	2738	ADD NOTE 4. REVISE NOTE 3. SEE ECN	MEL 6/14/05	

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AIRTEQ™

TITLE WIRING DIAGRAM, 9424D, 9524D, & 9624 MOTOR LOCK

DRAWN BY SAB
APPROVED
DATE 8-27-99
SCALE NONE

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SIZE B | DWG. NO. EL-0079 | REV 02

9624 SERIES LOCK PARTS LIST

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	216–9600–070	LOCK BODY FRAME
2	1	216–9400–022	SPRING, TORSION
3	1	216–9400–026	SPACER, LATCHBOLT
4	1	216-9600-133	LATCHBOLT, RH (SHOWN)
4	1	216-9600-134	(OR) LATCHBOLT, LH
5	1	316–0000–059	ROLL PIN, 1/8 X 1/2
6	2	310–0440–027	SCREW, SHCS, 4–40 X 3/8
7	1	216–9624–014	MOTOR MOUNT, UPPER
8	1	146–9624–000	ASSY, SLIDE
9	1	316–0000–063	DOWEL PIN, 5/16 X 1 1/4
10	1	313–0000–093	WASHER, .317 ID X 505 OD X .030
11	1	146–9600–008	ASSY, DEADLATCH ROLLER BOLT
12	1	216–9600–115	DEADLOCK ARM
13	2	310–0832–010	SCREW, SHCS 8–32 X 1/4
14	2	310–1032–020	SCREW, SHCS, 10–32 X 2 1/2
15	1	160–9600–004	ASSY, LOCK STATUS SWITCH (3 WIRE)
16	1	315–0000–040	SPRING, DEADLATCH
17	1	216–9600–072	RACK (SHOWN)
17	1	216–9600–111	(OR) RACK, ELHB
18	1	216–9600–123	MOUNTING PLATE
19	1*	216–9600–075	MOGUL CYLINDER PLATE, RH
20	1*	216–9600–074	MOGUL CYLINDER PLATE, LH
21	19	310–0632–007	SCREW, FH SOC., 6–32 X 5/16
22	2	310–0000–034	SCREW, BH SOC., 6–32 X 3/16
23	1	160–9624–000	ASSY,STEPPER MOTOR
24	2**	160–9600–000	ASSY, KEY SWITCH
25	4**	319–0000–052	SPACER, KEY SWITCH
26	1	146–9600–010	ASSY, GEAR
27	3***	319–0000–045	SPACER, GEAR
28	3	310–0632–021	SCREW, SHCS, 6–32 X 7/8
29	2	216–9600–081	GEAR SUPPORT PLATE
31	2	216–9624–013	STANDOFF, MOTOR MOUNT PLATE
32	1	310–1032–027	SCREW, SHCS, 10–32 X 3/16
33	2	310–0832–021	SET SCREW, 8–32 X 3/4
34	13	310–0000–009	SCREW, FH SOC., 10–32 X 1/2
35	2**	310–0632–023	SCREW, SET, 6–32 X 3/8
36	2**	310–0632–022	SCREW, SHCS, 6–32 X 1/2
37	1	216-9600-082	BACK PLATE
38	1	216-9600-087	RIGHT SIDE COVER
39	1	216-9600-088	LEFT SIDE COVER
40	1	216–9600–094	SLIDE COVER
41	1	216–9600–078	HOUSING COVER
42	1	216–9600–108	WIRE COVER
43	1	315–0000–059	SPRING, SLIDE RETURN
44	1****	146–9600–028	ASSY, HOLDBACK LATCH, KBS (SHOWN)
44	1****	216–9600–091	(OR) HOLDBACK LATCH, RH
44	1****	216–9600–090	(OR) HOLDBACK LATCH, LH
45	1	216–9600–086	MOTOR MOUNT PLATE
46	2**	315–0000–041	SPRING, KEY SWITCH
47	2**	216–9600–083	KEY SWITCH ACTUATOR
48	1****	315–0000–053	SPRING, HOLDBACK LATCH
49	1****	216–9600–104	RLB LATCH
50	1	340–0000–205	SPLIT LOOM, 5"
51	2****	310–0632–024	SCREW, BH SOC., 6–32 X 1/4
52	2	310–0000–014	SCREW, SHCS, 2–56 X 3/8
53	6*****	310–0256–002	SCREW, SHCS, 2–56 X 9/16
54	1	216–9500–025	INSULATOR PAD
55	2	313–0000–072	WASHER, PLASTIC
56	3	340–0000–064	WIRE TIE (PART NOT SHOWN)
57	1	SEE WIRING DIAGRAM	ASSY, 9 PIN MOLEX CONNECTOR
58	2****	313–0000–092	FLAT WASHER, #6, TYPE A
59	2	319–0000–064	SPACER, KEY SWITCH ACTUATOR
61	1	319–0000–062	STEM BUMPER (PART OF ITEM #8)
62	1	160–9624–001	WIRE HARNESS, 9624
63	1	216–9624–001	GUIDE BAR
64	1	216–9624–009	STOP SLEEVE

* KEYED ONE SIDE MODELS USE P/N 216-9600-076, MOGUL CLYINDER PLATE, BLANK ON SIDE NOT KEYED.

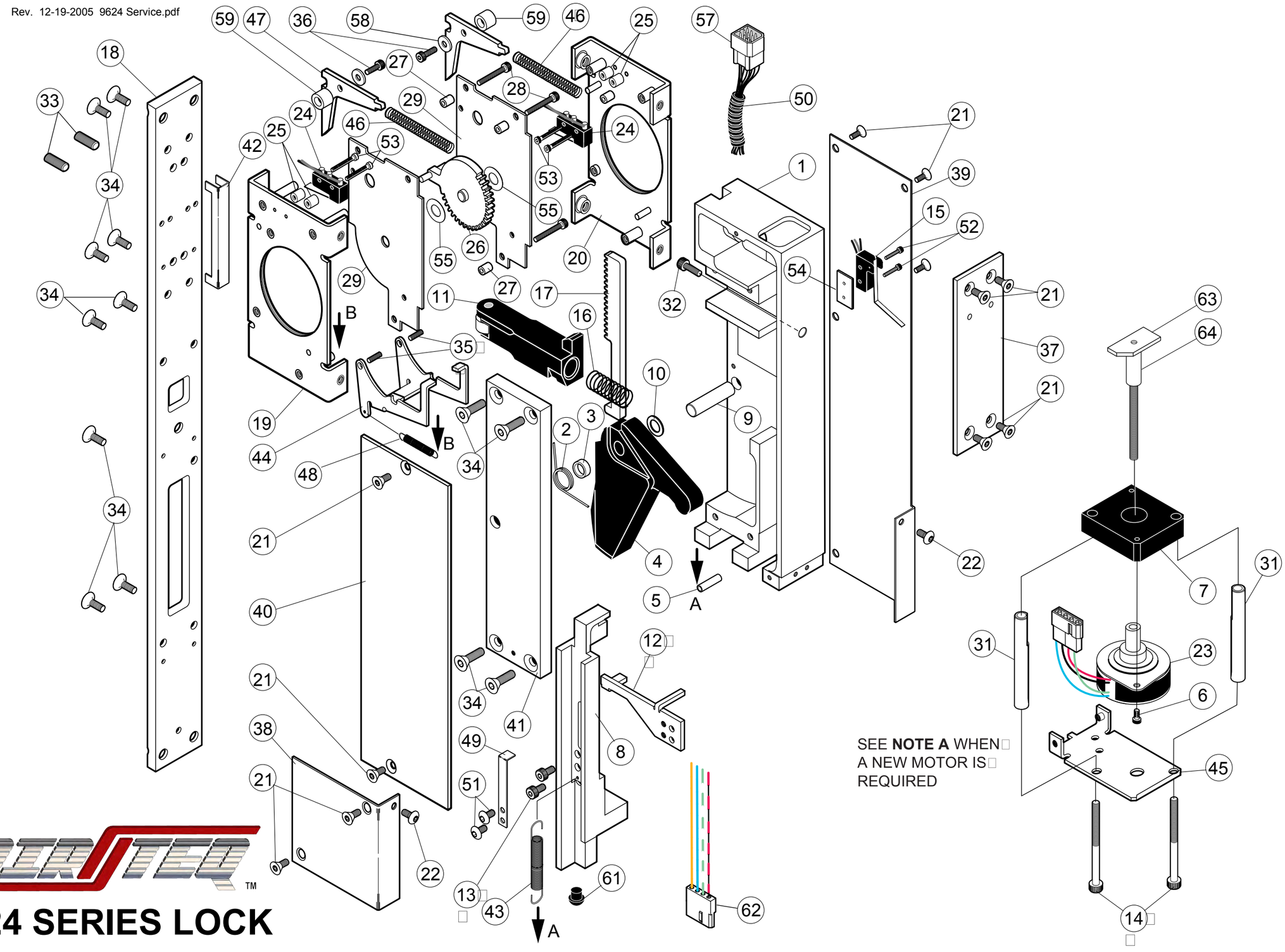
. ** DIVIDE QTY BY 2 FOR KEYED ONE SIDE MODELS. PART NOT PRESENT ON ALL MODELS.

*** QTY VARIES. KEYED ONE SIDE MODELS WITH MOGUL CYLINDER PLATE, LH USE QTY OF 6.

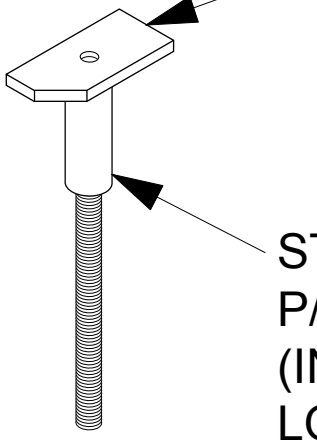
**** PART NOT PRESENT ON ALL MODELS.

***** QTY VARIES. MODELS WITH KEY SWITCH ONE SIDE USE QTY OF 4. MODELS WITHOUT KEY SWITCH USE QTY OF 2.

NOTE A: WHEN A NEW MOTOR IS REQUIRED, ORDER P/N 146-9624-005.
P/N 146-9624-005 CONTAINS ITEMS 6, 7, 23, 60, 63, & 64.
FOR OLDER LOCKS USING UPPER AND LOWER MOTOR MOUNTS, ORDER P/N 146-9624-006.
P/N 146-9624-006 CONTAINS ITEMS 6, 7, 23, 60, 63, 64, & 31.

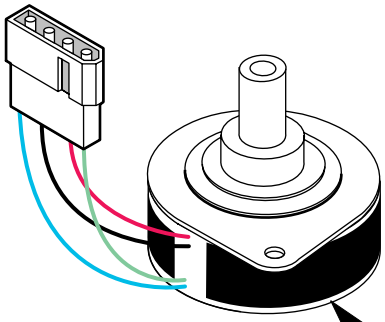


9624 SERIES LOCK



GUIDE BAR
P/N 216-9624-001
(INSTALL WITH
LOCTITE #262)

STOP SLEEVE
P/N 216-9624-009
(INSTALL WITH
LOCTITE #RC/680)



MOTOR ASSY
P/N 160-9624-000

MOTOR ASSEMBLY 9624

AIRTEX™

Motor Assy 9-2-03.eps

9624 SERIES LOCK
RECOMMENDED SPARE PARTS LIST

PART NUMBER	DESCRIPTION
160-9624-000	MOTOR ASSEMBLY, 9624
160-9600-004	ASSY, LOCK STATUS SWITCH
160-9600-000*	ASSY, KEY SWITCH
315-0000-041	SPRING, KEY SWITCH
315-0000-040	SPRING, DEADLATCH
216-9624-005	SPRING, MOTOR ASSIST
315-0000-059	SPRING, SLIDE RETURN
315-0000-053*	SPRING, HOLDBACK LATCH
340-0000-209	TERMINAL, MALE
125-0000-096 (96-241-0)	L.I.M. MODULE W/RLB
or	
125-0000-096 (96-241-1)	L.I.M. MODULE WO/RLB

***NOT USED ON ALL MODELS**

LOCK MAINTENANCE INFORMATION

ELECTRO-MECHANICAL LOCKING DEVICES

A. Lubrication and cleaning

1. Each lock is well lubricated at the time of assembly. However, all lubricants deteriorate eventually and need replacing on a regularly scheduled basis in order to prevent equipment failure. Airteq Systems recommends cleaning and lubricating each type of lock according to the following instructions approximately every (2) years. (Yearly for locks in high use areas).

9424 SERIES LOCK:

Remove the side cover plate and lubricate the angled ramp surface on the sideplate that the deadlatch bolt dowel pin rides against. Lubricate the stop side of the deadlatch bolt (back side). When replacing the side cover, hold the bolt slightly retracted by rotating and holding the manual release mechanism gear with one finger. This insures that the deadlatch limit switch operating lever will not be trapped between the cover and the actuator plate. The lower lock mechanism should be checked and cleaned once a year (or more often if if special conditions exist) for accumulated dirt and other debris that would interfere with proper operation. Lubrication of upper lock mechanism is not necessary nor recommended.

9624 SERIES LOCK:

Remove the slide cover. Remove the housing cover. Remove the slide assembly. Clean and re-lubricate the slide with a thin coating of recommended lubricant on the following surfaces:

a.) The 45º angled surface that contacts the deadbolt.
b.) The flat "shelf" that lifts the back of the latchbolt.
c.) The two small areas where the slide contacts the back wall of the slide cavity.
d.) The edges of the two "rails" which contact the side of the right side cover.
e.) The front and rear faces of the slide which contact the slide cavity walls.

When replacing the slide assembly, hold the latchbolt retracted into the lock housing while inserting the slide assembly near the top of the cavity so that it drops in above the lock status switch lever arm and not on top of it. Replace the housing cover and slide cover and fasten securely.Lubrication of the upper lock mechanism is not necessary nor recommended.

9724 SERIES LOCK:

Remove one side cover plate and lubricate the deadbolt shaft and cam surface. Lubricate the latchbolt shaft and the stop sides of both bolts.

9724P SERIES LOCK: (PARACENTRIC KEYING)

Remove one side cover plate and lubricate the deadbolt shaft and cam surface. Lubricate the latchbolt shaft and the stop sides of both bolts.

KEYS AND LEVER TUMBLERS:

1) Key wear can cause improper operation of the lock and may damage the lock's lever tumblers. Keys in constant use should be periodically compared to a similar new key. When grooves due to wear are noted in the steps on the key bit, the old key should be replaced.

2) When rekeying is performed, new tumbler stacks should be purchased as a set including a new key. This enables Airteq to maintain complete keying records.

WARNING:

1) Never use WD40 or similar silicone based lubricants.

2) Never use graphite powder as a lubricant.

3) Never lubricate the lever tumblers.

ALL LOCKS:

Lubricate the beveled surfaces of all lock bolts with stick lubricant as required.

2. RECOMMENDED LUBRICANTS:

Multipurpose teflon based grease: Lubricate internal moving parts with SYNCO SUPER LUBE WITH TEFLON or equivalent.

Stick lubricant: Lubricate the beveled surfaces of all latch bolts and strikes with stick lubricant as required. Use PANEF WHITE STICK LUBRICANT WITH SILICONE or equivalent.

B. Electrical:

1. The electrical system of this lock is operated on regulated 24VDC (± 2 V) current. Any other voltage or current condition is not acceptable.

TROUBLESHOOTING
9424, 9524, 9624 AND 9724 LOCKS

If the lock is not working properly, the following chart may be used as a guide to locate and correct the problem.

Because the lock receives its signal from the electronic control system, a thorough check of the control system should be conducted. Using a volt/ohm meter known to be accurate, verify the correct power signal input at the appropriate connector pin. If the proper electronic signal is not evident, begin checking " upstream " from the connector. If the electronic signal input is correct, the problem is within the locking device, use the following chart to locate and correct the problem.

The recommended voltage at the lock is 24 VDC ±2V. If the correct voltage is not evident, begin checking "upstream" from the lock. If the voltage is correct, the problem is within the locking device or it's logic interface module, use the following chart to locate and correct the problem.

PROBLEM	CHECK
LATCHBOLT WILL NOT RETRACT	*MECHANICAL INTERFERENCE *POWER INPUT TO L.I.M. (12pin connector) (24 VDC should be momentarily present on pin 2 at the initiation of an unlock request, momentarily present on pin 3 at the initation of a full cycle request and constantly present on pin 4.) *BROKEN OR LOOSE WIRING *IF CORRECT VOLTAGE IS PRESENT ON REQUIRED PINS AND LOCK DOES NOT FUNCTION, LOGIC INTERFACE MODULE OR MOTOR MAY BE FAULTY. *FAULTY KEY SWITCH
LATCHBOLT WILL NOT EXTEND	*MECHANICAL INTERFERENCE *POWER INPUT TO L.I.M. (12pin connector) (24 VDC should be momentarily present on pin 1 at the initiation of an lock request, momentarily present on pin 3 at the initiation of a full cycle request and constantly present on pin 4.) *BROKEN OR LOOSE WIRING *IF CORRECT VOLTAGE IS PRESENT ON REQUIRED PINS AND LOCK DOES NOT FUNCTION, LOGIC INTERFACE MODULE OR MOTOR MAY BE FAULTY. *FAULTY KEY SWITCH
LOCK RETRACTS BUT WITH LOW STALL FORCE	*BAD CONNECTION TO ONE MOTOR COIL. *LOW VOLTAGE. (Required voltage is 24 VDC ±2V)
MANUAL OVERRIDE NOT WORKING PROPERLY	*MECHANICAL INTERFERENCE *PROPER ENGAGEMENT OF KEY CYLINDER CAM IN LOCK
DOOR POSITION SIGNAL NOT GIVEN	*BROKEN OR LOOSE WIRING (SEE WIRING DIAGRAM)
LATCHBOLT POSITION SIGNAL NOT GIVEN	*BROKEN OR LOOSE WIRING (SEE WIRING DIAGRAM)